



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,728	06/06/2007	Bernd Salomon-Bahls	11138-024	9933
757 7590 12/01/2010 BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			EXAMINER DRIGGERS-FOURNET, GWENDOLYN	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 12/01/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,728	Applicant(s) SALOMON-BAHLS ET AL.	
	Examiner Gwendolyn D. Fournet	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-14 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/28/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a final Office action on the merits. Claims 1, 3-14, and 17-20 as amended, are currently pending and have been considered below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3, 5-7, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezura (US 2003/0178846), and in further view of Kooten (US 5,403,046).

Regarding claim 1, Ezura discloses a plug connector (10) for fluid conduits ([0002] which discloses use with a fluid tube), comprising a housing part (12) with a plug socket (figure 3, the open area of body (12) defined near (32a) and (32b)) for the fluid-

Art Unit: 3679

tight insertion of a tubular plug-in part (36), a holding element (52) for locking and a fluid seal (42) for sealing the inserted plug-in part being arranged in the plug socket (see figure 3), the housing part being in two parts comprising a base part (12) and an insert part (58) which is connected to the base part via a first snap-action positive fit connection (50), the base part comprising a receiving part (12) for the holding element, the fluid seal and the insert part, and a joining part (18) for the joining connection of the housing part to a fluid conduit ([0004] which discloses coupling of fluid tube to pressure apparatus); wherein the receiving part and the joining part are connected to each other via a second snap-action positive fit connection (20).

Ezura fails to explicitly disclose means for securing against relative rotation are provided between said receiving part and said joining part, and the means for the rotational securing is formed by inner or outer positive fit elements in such a manner that the receiving part and the joining part can be fitted axially but are secured against rotation relative to one another..

However, Kooten discloses a coupling having a means for securing against relative rotation (39) provided between said receiving part (7) and said joining part (5), and that the means for the rotational securing is formed by inner or outer positive fit elements (39) in such a manner that the individual parts can be fitted axially but are secured against rotation relative to one another (column 5 lines 44-45 and 65-67 which disclose the components can slide but not rotate with respect to one another).

Therefore, from the teachings of Kooten, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube joint in Ezura to

Art Unit: 3679

include a means for securing the inserted plug-in part against rotation as taught by Kooten in order to prevent rotation between the components (column 5 lines 65-67).

Regarding claim 3, Ezura further discloses an annular gap (figure 3, gap between connecting member (18) and body (12) near reference numeral (22)) between the receiving part and the joining part is sealed off in a fluid-tight manner via a seal (22) (see figure 3).

Regarding claim 5, Ezura further discloses the receiving part is formed of plastic material ([0030] which discloses joint body (12) as plastic) and the joining part is formed of metal ([0031] lines 1-2 which disclose connecting member (18) as metal).

Regarding claim 6, Ezura further discloses the holding element is a slotted (56), radially elastic ([0037] line 2) clamping ring (see figure 4) which interacts with an internal cone (figure 4, portion at the left end of (58) near reference numeral (60)) in the plug socket (see figure 3) to lock the plug-in part ([0040] describes fluid tube (36) prevented from detachment via fastening section (54) of chuck (52), the internal cone being formed in the insert part (see figure 3).

Regarding claim 7, Ezura further discloses the fluid seal is arranged in an annular chamber (32b) between one of the base parts or the receiving part and the insert part (see figure 3).

Regarding claim 17, Ezura further discloses the holding part is engaged with the insert part at a ramped surface that causes the insert part to be moved radially inward to further engage the plug-in part during attempted withdrawal of the plug-in part from the plug connector (see figure 3).

Regarding claim 18, Ezura further discloses the receiving part and the joining part are connected to each other via a second snap-action positive fit connection (see figure 3).

Regarding claim 19, Ezura further discloses the plug-in part is received in a hold position wherein the plug-in part is retained by engagement with the holding part and a leakage path is defined within the plug connector between an outer surface of the plug-in part and an inner surface of the insert part, the plug-in part being received in a seal position after insertion of the plug-in part beyond the hold position and wherein the leakage path is sealed off by the fluid seal (see figure 3).

Regarding claim 20, Ezura further discloses the first snap-action positive fit connection is a releasable connection (see figure 3).

Art Unit: 3679

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ezura in view of Kooten as applied to claims 1, 3, 5-7, and 17-20 above, and further in view of Hosono et al (US 6,447,019).

Regarding claim 4, the combination of Ezura and Kooten discloses all the structural elements of the claimed invention as recited in claim 1, but fails to explicitly disclose the receiving part, with a consistently identical configuration, can be connected to a plurality of different configurations of the joining part.

However, Hosono discloses a tube joint having the receiving part (14), with a consistently identical configuration (figure 2), can be connected to a plurality of different configurations of the joining part (18) (see figure 2 which illustrates a cavity for receiving coupling member (18) in joint body (14) which is identical to that shown in Ezura, but where the coupling member includes a bush (52)).

Therefore, from the teachings of Hosono, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube joint in the combination of Ezura and Kooten to include a metal bush as taught by Hosono which maintains a strong connection while permitting the use of other coupling materials, such as plastic, since the fluid within the coupling does not come into contact with the metal bush (column 4 lines 17-31).

Art Unit: 3679

5. Claims 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezura in view of Kooten as applied to claims 1-3, 5-7, and 17-20 above, and in further view of Legris (US 4,431,216).

Regarding claim 8, the combination of Ezura and Woodling discloses all the structural elements of the claimed invention as recited in claim 1, and Ezura further discloses the holding element for locking the inserted plug-in part and the fluid seal are arranged within the plug socket (see figure 3).

Ezura, fail to disclose a leakage path being formed in such a manner that, in a pre-locking position of the plug-in part, which position is locked by the holding element but is not yet sealed via the fluid seal, a physically perceptible leakage path for fluid within the housing part is defined.

However, Woodling discloses a tube fitting connection having a leakage path (25) being formed in such a manner that, in a pre-locking position of the plug-in part, which position is locked by the holding element but is not yet sealed via the fluid seal, a physically perceptible leakage path for fluid within the housing part is defined (column 4, lines 27-31, which disclose escape of fluid to the outside of the fitting via slots (25), and see figure 1 which shows the positioning of sleeve (12) within nut (14)).

Therefore, from the teachings of Woodling, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube joint of the combination of Ezura and Woodling in claim 1 to include flare slots on the plug-in part as taught by Woodling in order to indicate when the fitting is not properly installed.

Art Unit: 3679

The combination of Ezura and Woodling fails to explicitly disclose a dirt seal on the mouth side.

However, Legris discloses a tube fitting having a dirt seal (13) on a mouth side (see figure 13, opening near (13)).

Therefore, from the teachings of Legris, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube joint in the combination of Ezura and Woodling to include a dirt seal as taught by Legris as an obstacle to dirt and paint (column 8, lines 3-4).

Regarding claim 9, the combination of Ezura, Woodling, and Legris discloses all the structural elements of the claimed invention as recited in claim 8.

Woodling further discloses a tube fitting connection having the leakage path is formed by depressions (25) which are arranged on the outer circumference of the plug-in part (see figure 2) and, in the pre-locking position, are arranged in two groups (see figure 2).

Therefore, from the teachings of Woodling, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube joint of the combination of Ezura, Woodling, and Legris in claim 8 to include flare slots on the plug-in part as taught by Woodling in order to indicate when the fitting is not properly installed.

Regarding claims 10-13, the combination of Ezura, Woodling, and Legris discloses all the structural elements of the claimed invention as recited in claim 9.

As per claim 10, Woodling further discloses a tube fitting connection having the depressions in the two groups in each case comprise a plurality of depressions (see figure 2) which are distributed over the circumference (see figure 2) and are spaced apart axially (see figure 2) via a cylindrical fluid-sealing section (see figure 2 which illustrates depression spaced circumferentially around the fitting).

As per claim 11, Woodling further discloses a tube fitting having a cylindrical dirt-sealing section adjoins the depressions (see figure 1 where nut (14) overlaps tube (11) and sleeve (12)) which are situated away from a front plug-in end (figure 5 near (44)) of the plug-in part (12)).

As per claim 12, Woodling further discloses a tube fitting connection having the depressions start from the front plug-in end of the plug-in part (see figure 7 which illustrates depressions (25) near the portion of plug-in part (12) that is inserted into the coupling as shown in figure 1).

As per claim 13, Woodling further discloses a tube fitting connection having depressions each with an elongate, generally rectangular shape oriented in the plug-in direction (see figure 2).

Therefore, from the teachings of Woodling, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube joint of the combination of Ezura, Woodling, and Legris in claim 9 to include flare slots on the plug-

Art Unit: 3679

in part as taught by Woodling in order to indicate when the fitting is not properly installed.

Regarding claim 14, the combination of Ezura, Legris and Woodling discloses all the structural elements of the claimed invention as recited in claim 9 and further discloses an axial distance between fluid seal and dirt seal.

Woodling further discloses a tube fitting connection having axial center distance between the depressions (see figure 2).

Therefore, from the teachings of Woodling, it would have been obvious to one of ordinary skill in the art at the time of the invention to locate the depressions relative to the seals of the combination of Ezura, Woodling, and Legris in claim 9 at a corresponding axial distance in order to ensure proper function of the flare vents (see figure 1).

Response to Arguments

6. Applicant's arguments filed 7/28/10 have been fully considered but they are not persuasive.

7. Applicant's arguments with respect to claims 1 and 3-8 have been considered but are moot in view of the new ground(s) of rejection.

8. In response to Applicant's arguments regarding claims 9-14, under the broadest reasonable interpretation of "depressions", the slots described in Woodling would be

Art Unit: 3679

considered depressions since a depression can be defined as "a hollow place or part" and the slots of Woodling are a hollow place.

Information Disclosure Statement

9. The information disclosure statement filed July 28, 2010 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the respective citations fail to include a date for the document. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Applicant has amended claim 1 to include a snap-action positive fit connection located directly between the insert part and the base part in line 6-7.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

Art Unit: 3679

CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn Fournet whose telephone number is (571)270-5740. The examiner can normally be reached on Mon-Thurs 7:30a-6:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gwendolyn Fournet
/GDF/
Examiner
Art Unit 3679
11/19/10

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679